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AUTHOR O'Hear, Michael F.; Ramsey, Richard N.
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ABSTRACT

A study was conducted to determine whether there was any match between student perception of reading ease and the readability of three main line, first-year college composition texts (Daugherty; Kinneavy, McCleary, and Nakadate; Lauer, Montague, Lunsford, and Emig) as determined by five commonly used readability formulas. Two chapters (on exposition and persuasion) were chosen from the five texts, and readability scores for each chapter as well as the texts as a whole were obtained. Students (n=311) responded to a Likert scale in response to the statement "This text was easy to read." Mean student readability perceptions were compared with the readability of the books as determined by formulas. Results indicated a serious discrepancy between student perceptions of reading ease and formula predictions. One explanation for the discrepancy may lie in text features not picked up by the formulas. These text features include: use and placement of main idea statements, examples, and repetition of key information. (One table is included.) (MG)

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A Comparison of Readability Scores and Student Perceptions of Reading Ease

Michael F. O'Hear
Director, Transitional Studies
Indiana University-Purdue University
Fort Wayne, IN 46805
219-481-6817

Richard N. Ramsey
Associate Professor, English and Linguistics
Indiana University-Purdue University
Fort Wayne, IN 46805
219-481-6771

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How valuable are readability formulas in determining the usefulness of college textbooks for students? While some researchers (Fry,1977; Longo, 1982) have validated readability formulas for use with college-level texts, others (O'Hear & Ramsey, 1985) have cautioned that modifications are needed before taking readability scores too seriously. Still others (Maginnis, 1982;O'Hear & Ashton, 1989) have suggested more meaningful alternatives, including using cloze procedures and assessing placement of main ideas. However, formulas remain the most commonly used means of determining readability.

The purpose of this study is to see whether there is any match between student perception of reading ease and the readability of three main line, first-year composition texts (Daugherty, 1985; Kinneavy, McCleary, & Nakadate, 1985; Lauer, Montague, Lunsford, & Emig, 1985; al hereafter referred to by primary author) as determined by five commonly used readability formulas. Three of these formulas have been validated for the college level (Flesch, Fry, and Farr, Jenkins, Patterson) by Longo (1982); McLaughlin (1969) claims the fourth, the SMOG index, produces results close to the true readability of any piece of reading material. The fifth, the Raygor Readability Estimate (Raygor, 1977), claims to be a quick, easy way to determine reading difficulty.

For this study, we selected two chapters from these texts, those on exposition and persuasion, which are important in most

composition courses. After obtaining readability scores for each of these chapters, as well as for the texts as a whole according to all of these formulas, we asked students in at least two sections of first-year composition classes using each of these texts (n=311) to respond to the statement, "This text was easy to read." soon after they read both the exposition and persuasion chapters of each text. Students responded on a Likert scale of 1-4 with 1 meaning "strongly agree" and 4 meaning "strongly disagree." Results were tabulated by chapter and book to determine how readable students perceived texts to be. Mean student readability perceptions were compared with the readability of the books as determined by formulas. Results indicate how well the various formulas correlated with student readability perceptions.

Students involved ranged in age from traditional beginning college students to adult students who had been out of school ten or more years. Female students slightly outnumbered males. Most were part-time students and were in their second semester of college work.

Since five different instructors taught the sections used in this study, we used a t-test to check for difference of response among students of different instructors. No significant difference was found among the various instructors.

The table below shows the formula ratings for each text and the student mean response to the statement "This text was easy to read."

[Insert table about here,]

Flesch formula

Flesch's scores are translated into various reading ease levels ranging from "very easy" to "very difficult." All three texts rated as difficult to read according to this formula. However, students rated all three texts as fairly readable. Indeed, in all cases, the student mean response to the assertion of reading ease was between "strongly agree" and "agree." For no book was the mean response higher than 1.767. Thus, student perception of readability seems to relate poorly to Flesch formula results.

Farr, Jenkins, Patterson Formula

Farr, Jenkins, Patterson is an adaptation of Flesch, in which a count of single-syllable words replaced Flesch's total syllable tally. Its authors (Farr, Jenkins, & Patterson, 1951) claim that its scores will duplicate those produced by the Flesch formula, and with these books, it matches exactly. Since the Flesch scores relate but poorly to student perceptions, the same question of whether this formula corresponds with perceived difficulty remains.

Fry Formula

The Fry formula indicates that two of the three texts (Lauer and Kinneavy), including the text perceived as easiest by students, are beyond first-year college level. Indeed, since this formula purports to give a frustration reading level, even the Daugherty text is not as easy as an 11th grade level would indicate.

Students, as we have noted, seem to find none of these texts particularly difficult. Only in the case of Daugherty do student perceptions and Fry formula results seem close. Again, students do not perceive text difficulty to be the same as the formula does.

Raygor readability estimate

Raygor estimates are nearer those of students than those of either Flesch or Fry. Only in the case of Kinneavy are ratings far apart, but here the difference is large. Raygor indicates this book is written on the professional level while students rank this as the easiest of the three books. Lauer, which students (marginally) perceived as the most difficult of the three books, is rated easiest of the texts by a wide margin on the Raygor estimate. Both Fry and Flesch consider this text as much more difficult than Raygor Students seem to perceive little difference in readability between Daugherty and Lauer, texts Raygor indicates

are two grade levels apart in readability. Again, reader perceptions and formula have a serious discrepancy.

SMOG

The SMOG index rates all three texts as college level, but only one of the three (Lauer) is rated as first-year level. The others are sophomore and junior level. This seems in serious opposition to student perception that all these texts are at least fairly easy to read.

One explanation for the discrepancy may lie in text features not picked up by the formulas--the use and placement of main idea statements. Each text had a high concentration of main ideas located in the first sentence of paragraphs(59.5%). This pattern is a primary one taught to composition students. One would expect that student familiarity with and recognition of this pattern contributes to a feeling that the text is easy.

Other devices used heavily by authors were examples(in 64.4% of the paragraphs) and repetition of key information(in 46.7% of the paragraphs). The high frequency of examples gives the student plenty of opportunity to see how the techniques the author is describing work. Similarly, when the authors rephrase important ideas so often, they are giving the students a major clue to the significance of certain ideas.

None of these devices are picked up by formulas. However, all may combine to make students perceive text as easier than formulas indicate. Perhaps this suggests that, in selecting texts, instructors should pay more attention to textual features such as examples, repetition and main idea use and placement in choosing texts for their writing courses.

Whatever the reason, there seems a serious discrepancy between student perceptions of reading ease and formula predictions. While it is true that students may perceive a text as easier, or harder, to read than it really is, we must assume that student perceptions are guides to text difficulty. If student perceptions reflect text difficulty accurately, then readability formulas may not be effective guides as to whether texts match student levels of reading ability.

Table

Formula Readability Scores and Student Perception of Reading Ease for Three First-Year Composition Texts

Measure	Daugherty	Kinneavy	Lauer
Flesch	Difficult	Difficult	Difficult
Farr, Jenkins, Patterson	Difficult	Difficult	Difficult
Fry	11th grade	14th grade	15th grade
Raygor	12th grade	Professional	10th grade
SMOG	14th grade	15th grade	13th grade
Mean Student Perception	1.687*	1.675*	1.767*

*= Mean student response to the statement, "This text was easy to read," on a four-point Likert scale with 1.0 meaning "strongly agree" and 2.0 meaning "agree."

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